

The Claims

1. A method for monitoring a field of view for visible changes, comprising in combination the steps of:

5 taking a benchmark image in a predetermined manner of the field of view to be monitored;

dividing the benchmark image into a plurality of cells;

taking a second image in the predetermined manner of the field of view to be monitored after creating the benchmark image;

10 dividing the second image into the plurality of cells;

comparing predetermined groups of cells of the second image to the same predetermined groups of cells of the benchmark image;

giving each cell of the benchmark image a numerical value based upon the information in each cell;

15 giving each cell of the second image a numerical value based upon the information in each cell;

giving each group of cells a numerical value based upon the numerical value of the cells within that group; and

20 wherein comparing predetermined groups of cells of the second image to the same predetermined groups of cells in the benchmark image comprises computing the difference between the numerical values of each group of cells in the second image and in the benchmark image.

2. A method according to Claim 1 wherein:

25 each cell comprises a pixel; and

the numerical value of each cell comprises the brightness of the pixel.

3. A method according to Claim 2 wherein the numerical value of each group of cells comprises the sum of the brightness for the pixels in the group.
4. A method according to Claim 3 wherein the predetermined groups of cells comprises a single group.
5. A method for monitoring a field of view for visible changes, comprising in combination the steps of:
 - taking a benchmark image in a predetermined manner of the field of view to be monitored;
 - dividing the benchmark image into a plurality of areas;
 - taking a second image in the predetermined manner of the field of view to be monitored after creating the benchmark image;
 - dividing the second image into the plurality of areas;
 - comparing predetermined areas of the second image to the same areas of the benchmark image;
 - computing the number of the predetermined areas that changed from the benchmark image to the second image;
 - giving each area of the benchmark image a numerical value based upon the information in each area;
 - giving each area of the second image a numerical value based upon the information in each area; and
 - wherein computing the number of the predetermined areas that changed from the benchmark image to the second image comprises computing the difference between the numerical values of each area in the second image and in the benchmark image.

6. A method according to Claim 5 further comprising the step of computing the number of the predetermined areas that changed in numerical value by more than a predetermined amount.
- 5 7. A method according to Claim 5 further comprising the step of comparing the number of the predetermined areas that changed from the benchmark image to the second image to a predetermined number.
- 10 8. A method according to Claim 7, further comprising the steps of:
 - giving each area of the benchmark image a numerical value based upon the information in each area;
 - giving each area of the second image a numerical value based upon the information in each area; and
 - wherein computing the number of the predetermined areas that changed from the benchmark image to the second image comprises computing the difference between the numerical values of each areas in the second image and in the benchmark image.
- 15 9. A method according to Claim 8 further comprising the step of computing the number of the predetermined areas that changed in numerical value by more than a predetermined amount.
- 20 10. A method for monitoring a field of view for visible changes, comprising in combination the steps of:
 - 25 taking a benchmark image in a predetermined manner of the field of view to be monitored;
 - determining the image mass of the benchmark image;

taking a second image in the predetermined manner of the field of view to be monitored after creating the benchmark image;
determining the image mass of the second image; and
comparing the image mass of the benchmark image to the image mass of the second image.

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11. A method for monitoring a field of view for visible changes, comprising in combination the steps of:

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taking a sequence of images in a predetermined manner of the field of view to be monitored;
determining the image mass of each of the images in the sequence;
comparing the image mass of the images in the sequence to each other;
computing if there is a cyclical change in the image mass of the images in the sequence.

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12. A method for monitoring a field of view for visible changes, comprising in combination the steps of:

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taking a sequence of images in a predetermined manner of the field of view to be monitored;
dividing each of the images into a plurality of cells;
comparing a plurality of predetermined groups of cells of each image to the same groups of cells of the other images;
computing if there is a cyclical change in any of the predetermined groups of cells during the sequence;
giving each cell of each image a numerical value based upon the information in that cell;

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giving each group of cells of each image a numerical value based upon the numerical value of the cells within that group; and

wherein computing if there is a cyclical change in any of the predetermined groups of cells during the sequence comprises computing if there is a cyclical change in any of the numerical values of the predetermined groups of cells during the sequence.

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13. A method according to Claim 12, wherein:

each cell comprises a pixel;

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the numerical value of each cell comprises the brightness of the pixel;

and

the numerical value of each group of cells comprises the sum of the brightness for the pixels in the group.

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14. A method according to Claim 13, wherein the predetermined groups of cells comprises a single group.

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15 A method for monitoring a field of view for visible changes, comprising in combination the steps of:

taking a manually set benchmark image in a predetermined manner of the field of view to be monitored;

dividing the benchmark image into a plurality of cells;

taking a second image in the predetermined manner of the field of

view to be monitored after creating the benchmark image;

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dividing the second image into the plurality of cells;

giving each cell of the benchmark image a numerical value based upon the information in each cell;

giving each cell of the second image a numerical value based upon the information in each cell; and

comparing the sum of the cells of the second image to the sum of cells in the benchmark image.